

AUGUST 1978

‘KING RED’ RUSSIAN OLIVE



FIRST RELEASED VARIETY OF RUSSIAN OLIVE

SHELTERBELT AND WINDBREAK SPECIES

WILDLIFE PLANT

LARGE REDDISH FRUIT

'KING RED' RUSSIAN OLIVE

'King Red' Russian Olive (*Elaeagnus angustifolia* var. *orientalis* Dipp.) is an introduced deciduous tree which can be used in shelterbelt or windbreak plantings. Its silvery leaves, brown stems, and decorative fruits make a colorful landscape plant. It can also be used as a trimmed formal hedge. Fruits are edible and used by many species of birds. It provides cover for many kinds of wildlife and is useful to bees in the production of honey.

This variety was released in 1978 by the Agricultural Experiment Stations of New Mexico State University and Colorado State University, the New Mexico State Highway Department, the **USDA**, Agricultural Research Service of Cheyenne, Wyoming, and the USDA, Soil Conservation Service of Los Lunas, New Mexico.

ORIGIN AND DESCRIPTION

Seed of 'King Red' was collected in Afghanistan in 1958 by Dr. A. C. Hildreth, USDA Agricultural Research Service, Horticultural Experiment Station in Cheyenne, Wyoming.

Plants were distributed in 1962 by the Cheyenne Station to plant materials centers in Manhattan, Kansas, Los Lunas, New Mexico, and Bismarck, North Dakota. The Accession number assigned to this material was Wy-292. The seven plants received by the Los Lunas PMC have been used as a seed source to provide plants for additional trials. Most of the seedlings have been produced from seed collected from one tree designated as Wy-292A.

The most striking feature of this variety is its large and colorful drupe-like ellipsoid-shaped fruits. These ripen between July and October, are $\frac{3}{4}$ to 1 inch long, and are reddish brown to burgundy in color. This is quite different from common Russian Olive (*E. angustifolia* L.) whose fruits are usually less than 1/2

inch long and are yellowish to brown at maturity. Another difference is that an occasional 'King Red' plant will be nearly thornless.

Mature plants attain heights of 25 to 35 feet on good sites. Leaves alternate one to three inches long. They are oblong, lanceolate to linear, lanceolate-silvery, scurfy beneath, and green or somewhat scurfy above. The young branches are silvery and scurfy but are brownish when older. Flowers are fragrant, pale yellow or silvery, axillary, and scattered on the branches in clusters of one to three.

Insects and diseases have not been a problem on 'King Red'. It is apparently as drought-resistant as common Russian Olive and tolerates considerable amount of salinity or alkalinity.

AREA OF ADAPTATION

The full range of adaptation of this introduced species is unknown. 'King Red' Russian Olive is adapted to much of New Mexico and Colorado at elevations of 3,500 to 6,500 feet. It will grow in a variety of different soils. Supplemental water is needed on the drier sites unless a high water table supplies the needed water. This variety has winterkilled after a few years at Manhattan, Kansas, and Bismarck, North Dakota. However, it survived minus 25° F. at Los Lunas, New Mexico.

ESTABLISHMENT

'King Red' Russian Olive will be available commercially in 1979 as bare-root stock or in containers. No special planting techniques are necessary for this variety other than normal procedures for any transplanted material.

COMMERCIAL PROPAGATION

'King Red' is a seed propagated variety. Vegetative

propagation is possible but may be less desirable for conservation plantings because such a practice may narrow the gene base.

Trees of this variety generally are at least five years old before they produce seed. Trees with the largest fruits usually produce the fewest seeds. Stratification or other treatment is needed to increase the germination of the naturally dormant seed. Seed is usually depulped prior to planting, but stands can be obtained without this practice. Fall or winter planting of the seed is easier than stratifying it for a month or more in moist sand at 32° F. Most of the seedlings will emerge by late April if the seed is planted before February and soil moisture and temperature remain favorable.

Bare-root plants one to two years old can be used for making plantings under favorable conditions. However, potted plants have been more successful than bare-root stock on the more difficult sites.

Breeder seed will be maintained by the Los Lunas Plant Materials Center. Limited numbers of live plants are available to commercial growers for establishing seed source nurseries. Seed for initial commercial nursery production can be obtained from the Los Lunas PMC through Resource Conservation Districts and state crop improvement or seed growers associations. Additional information on commercial propagation of this variety is available from the Los Lunas PMC, 1036 Miller Street **SW**, Los Lunas, New Mexico 87031.

ACKNOWLEDGEMENTS

This publication was prepared and published by the New Mexico State Highway Department and the New Mexico Crop Improvement Association. Additional information is available on the use of 'King Red' Russian Olive from any conservation district or Soil Conservation Service office serving your area. Assistance is available without regard to race, creed, color, sex or national origin.